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## Memorandum

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**To:** Maggie Glowacki, City of Seattle  
**From:** Kristin Noreen  
**CC:** Laura Praye, WDFW  
**Date:** February 13, 2006  
**Re:** Ash Grove Cement Co. Planting Plan  
City of Seattle Project No. 3003446  
WDFW HPA No. 103568-1

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This planting plan was prepared to satisfy the condition in the SEPA DNS requiring vegetation planting with a maintenance and monitoring plan for the 140-ft-x-40-ft area just north of the barge off-loading area (Figure 1). The plan is to include planting of native willows along the shoreline so that they overhang the bank, and additional native shrub and tree planting in bare areas, and planting is to be maintained and monitored to ensure 80 percent survival after five years.

### Shoreline Willow Planting

Six inches of topsoil will be placed along the bank in a 10-foot-wide strip from the point where the shoreline riprap ends.. The topsoil will be overlain with coir or jute fabric to hold it in place and the live stakes will be planted through the fabric. Willow stakes will be planted in three rows, at 4-foot intervals along the 140-foot stretch of shoreline. The first row of stakes will be 3 feet back from the shoreline riprap, and the second row will be set back approximately 3 feet from the first, and the third row will be set back approximately 3 feet from the second. Each row will contain 30 to 35 stakes, for a total of 100 plants. Willow species will be one or more of the following, depending on availability: *Salix hookeriana*, *S. scouleriana*, *S. sitchensis*, and *S. lasiandra*. A staking detail is included as Figure 2.

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### **Additional Tree and Shrub Planting**

In 1992 the mitigation area was planted in association with another project. The original planting design was prepared by Adopt a Beach, a non-profit corporation. The plan recommended that each 20-by-20-foot area be planted with:

- 5 willow (*Salix sp.*) or alder (*Alnus rubra*) saplings (shown in figure along shoreline)
- 5 salmonberry (*Rubus spectabilis*) shoots
- 8 salal (*Gaultheria shallon*) in 5-gallon pots
- 1 douglas fir (*Psuedotsuga menziesii*) (> 6 ft tall)
- 10 snowberry (*Symphoricarpos albus*) or nootka rose
- 1 madrona (*Arbutus menziesii*) (> 2 ft tall)

The Adopt a Beach planting plan is attached as Figure 3. Since 1992, the larger tree species have survived well, but the smaller ground cover shrubs have not. Ash Grove Cement Co. (Ash Grove) will fill in the bare-ground areas (as shown in Figure 1) with salmonberry, salal or Oregon grape (related species), and snowberry. A total of 50 shrubs will be planted to reach the desired plant density. In the largest bare area toward the north end of the site, which measures approximately 400 square feet, Ash Grove will plant two trees, either douglas fir or madrona, depending on availability.

All planted areas will receive six inches of topsoil and a 4-inch mulch layer to retard weed growth and help retain soil moisture.

### **Implementation Timing**

Shoreline willow planting will take place in mid-to-late February 2006 for ideal rooting and survival. Arrangements will be made for delivery of topsoil, coir or jute fabric, and willow shoots during the week of February 13-17, for delivery and planting during the week of February 20-24. Bare-area planting will be done in March or April 2006.

### **Maintenance and Monitoring Plan**

Maintenance shall consist of weeding and watering during the dry season for the first year. An Ash Grove employee will be assigned to walk the site every two weeks from April through September and make a note of dead or distressed plants. Distressed plants will be watered and

competing weeds will be removed. Dead plants will be replaced within three months. If plants die repeatedly in a given location, Ash Grove will contact Anchor for advice on replacement with a different native species with a greater likelihood of success. The site will be monitored for five years, until spring 2011.

In summer 2006, photos will be taken from four points within the planting area. These points will be marked with a stake so they can be found again later. Each summer, photos will be compared to those from the previous year and it will be determined whether or not 80 percent of the canopy cover has been maintained. Supplemental planting will be done if needed.